76 01926

TK1078
L67
1975
IGSL
UCB

Statement on
Nuclear Power Plants, Initiative Statute
Before the
Assembly Committee on
Resources, Land Use and Energy
December 3, 1975

Los Angeles Department of Water and Power

My name is Carl M. Tamaki. I am the General Manager and Chief Engineer of the Los Angeles Department of Water and Power. I am speaking today on two areas of concern caused by the Nuclear Power Plants Initiative.

The first area of concern is the major problems imposed directly by the initiative, and the second is the impact the passage of the initiative would have on the electric system of Los Angeles.

It appears the initiative route was chosen to avoid the legislative process because its sponsors did not want the measure subjected to the usual legislative procedures. Under these circumstances, it is ironic that the initiative designates the legislature as the final authority on nuclear power plant safety. As I'm sure you're fully aware, the initiative requires that an advisory group approved by the legislature hold full and open hearings to solicit public comment and opinion and submit a final report to the legislature. The legislature then is required to hold full and open hearings on the report submitted to it by the advisory group. Only after all this cumbersome, costly and duplicative process may the legislature then make a determination on the safety issues.

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY
JUN 2 1976
UNIVERSITY OF CALIFORNIA

The initiative appears to have been deliberately framed in such a manner so as to delay resolution of its requirements beyond the time limits it prescribes.

For example, the initiative requires that by June, 1977, present federal laws limiting insurance liability be removed or the power output of all California nuclear plants be reduced to 60 per cent of rated capacity. This is, in our opinion, an insurmountable roadblock to constructing new nuclear power plants in California. If a plant is only allowed to operate at 60 per cent of rated capacity, this will affect the per kilowatt cost of nuclear plants and would, for all practical purposes, make it almost impossible to finance such a facility. The initiative takes away the viable nuclear option from the California utilities at a time when all options must be considered to meet the energy needs of the citizens of the State of California.

Furthermore, we believe that the likelihood of Congressional action to comply with the requirement in the initiative on insurance liability within one year is extremely remote. We believe it is unrealistic to expect, in a matter of such nationwide importance as nuclear power, that federal law would be modified by Congress to meet the requirements of one state.

Another requirement of the initiative is that the legislature make a determination regarding the effectiveness of all safety systems of every nuclear power plant in the state. We believe this requirement is impossible to meet within the time period specified, and therefore, would result in derating existing plants.

In summary, in this area, we believe passage of the initiative would effectively prevent the construction of new nuclear power plants in California and halt work on plants under construction.

Now, I would like to speak about the second area of concern, namely, the impact of the passage of the initiative on the electric system of Los Angeles.

Presently the Department of Water and Power serves approximately 3 million people in Los Angeles and is the Nation's largest municipally owned electric utility. The Department's electric energy resources include both fossil-fueled and hydroelectric generating plants. These resources are roughly divided as follows:

57 per cent - oil and gas

22 per cent - hydro

21 per cent - coal

As you can see, the City of Los Angeles is heavily dependent upon oil and gas. During 1976, we expect to purchase approximately 19 million barrels of low-sulfur fuel oil. We believe it is essential that we change our energy base from predominantly oil to coal and nuclear due to the high cost and uncertain availability of low-sulfur oil obtained from mostly foreign sources and subject to the new energy diplomacy. During the next 20 years, both coal and nuclear plants must be built to meet our load growth and replace existing high cost oil-burning power plants.

We recognize that strong conservation programs and increased efficiency in the utilization of electricity will reduce the rate of growth of electric energy. Los Angeles is very familiar with energy conservation programs. During the 1973 oil embargo, the city instituted a mandatory conservation program, and the people of Los Angeles responded

magnificently by reducing their consumption by approximately 17 per cent. Since then, we have continued an aggressive program of encouraging conservation among residential, commercial and industrial customers.

A recent example of our efforts toward providing leadership in energy conservation was demonstrated by a cooperative venture with the Central City Association of Los Angeles and four major downtown businesses on a voluntary energy management program. This ERDA funded program calls for 11 of Los Angeles' largest downtown buildings to be monitored by a computer which will warn when reduced consumption goals are about to be exceeded in individual buildings. Energy savings amounting to 10 per cent could be achieved.

In addition, the Department is participating with the Rand Corporation in a Federal Energy Administration program designed to study between 2,000 and 2,500 residential customers using different experimental rates to test the impact of those rates on energy usage. This four-year, $3 million study will provide data which will be useful in developing electric rate structures to encourage further energy conservation.

During 1975, the Department of Water and Power has experienced a 4.6 per cent increase in electric consumption over 1974, but consumption is still below 1973 levels by approximately 8 per cent. We have concluded that although conservation is helping, our load is continuing to grow,

and we must take the necessary steps to meet the needs of our customers as mandated by our City Charter.

Large, new buildings continue to be built throughout the city. Three new hotels are planned, or under construction, including a 1,500 room complex near the Civic Center. The Century City complex continues to grow. Redevelopment in the harbor area and throughout the city means new electrical energy demands on our system. The Good Samaritan Hospital and the proposed LNG plant in the harbor area are examples of facilities which will add substantial load to our system. Federal and state clean air and water programs for the Los Angeles and Southern California area will require more, not less, electrical energy. The rapid transit system proposed for Los Angeles only a few days ago will require substantial amounts of electric power--in excess of 50,000 kilowatts.

I could continue, but the most important demand for more, not less energy comes from our citizens, many of whom are just now reaching a standard of living that only a few enjoyed in the past. They will require more, not less energy, if the dream and promise of upward mobility and a better way of life is to be theirs.

The goal of the federal government's Project Independence is to reduce our country's dependence on foreign oil. The Department of Water and Power firmly supports this goal, and to achieve it in a timely manner, we must expeditiously shift to nuclear and coal plants for the generation of electrical energy. Other types of generation such as wind, solar, fusion and geothermal will not, in our opinion, be available in sufficient quantities or in time to meet our near-term needs.

The Department has investigated development of geothermal power resources in the Inyo-Mono County area and is continuing its investigation in this area. As a joint venture with the Department of Public Works, we have demonstrated the feasibility of using methane gas from sanitary landfills for electric generation. This utilization of methane fuel generation could ultimately produce 50,000 kilowatts of power for Los Angeles and reduce the need for up to 650,000 barrels of fuel oil a year.

While solar and fusion energy appear to be promising resources that may contribute to our long-term needs, it is extremely doubtful that they can play an important role in our resource program before the year 2000. Natural gas can no longer be considered a fuel for electrical generation because of its unavailability as boiler fuel.

In reference to solar power, Mayor Bradley announced last week that Los Angeles had submitted a proposal for federal funding of a major solar heating and cooling demonstration unit to be sited at the Los Angeles Convention Center. The Department is working with other city departments in connection with this proposed project, which could be operational in late 1976 or early 1977.

I have mentioned earlier the need for the Department to change its energy base. In this transition, coal will play an important role because of its availability and the shorter lead time required in siting coal plants as contrasted with nuclear. Presently, the Department is a part owner of two coal plants; the Mohave plant in Southern Nevada

and the Navajo Plant in Arizona, and we are investigating participation in three others in Nevada and Utah. Even as we attempt to increase our use of coal, we believe its limitations should be recognized. The increased use of coal will require resolution of major problems associated with the cost of opening new mines, environmental restrictions relating to the mining and burning of coal, and recruiting and training an adequate labor force.

California has virtually no coal resources. We believe that the siting of coal plants in Southern California is of questionable feasibility because of existing and proposed air quality standards and the costs of hauling coal great distances between mines and plants. This essentially means that California utilities must attempt to site coal plants in neighboring states as close as practicable to coal deposits and water sources. We believe that there are definite limits to the amounts of electrical energy that can, or should come from out of state. Some of the problems associated with out-of-state siting are:

1. Requirements for legislative or administrative approval from the state in which plants are to be sited.
2. Limited availability of cooling water.
3. Requirements for federal government approval, since many planned out-of-state coal projects are located on federal lands or require transmission lines crossing federal lands.

4. Requirements for extensive transmission line corridors.

It is unrealistic for Californians to expect that major portions of their electrical energy needs will be met by plants located in neighboring states. We believe that passage of the Nuclear Power Plants Initiative will greatly compound existing problems California utilities are having in siting power plants out of state.

In the area of nuclear resources, the Department of Water and Power, since 1972, has been conducting feasibility, environmental and site studies on the proposed San Joaquin Nuclear Project. This project would comprise four, 1300-megawatt nuclear generating units, to be constructed in northern Kern County approximately 33 miles northwest of Bakersfield. The project's first unit is scheduled for service in late 1984. The San Joaquin Nuclear Project is of immense importance to the state. The prospective participants include most California electric utilities and the State Department of Water Resources. When completed in 1989, the project will supply a significant portion of the state's energy requirement.

The benefits of the project are many. To list a few:

1. Electrical energy will be produced to meet a part of the needs of 90 per cent of the residents, businesses and industries in California.
2. Approximately 36½ billion kilowatt hours will be generated annually. This is equivalent to 55 million barrels of oil. Cost of this energy will

be substantially lower than that generated in oil-fueled plants.

3. Energy will be provided for a portion of the State Water Project pumping requirements.
4. Agricultural wastewater will be utilized for generating plant cooling.
5. The dependence on oil-fired generating facilities will be reduced, thereby improving state air quality.
6. Employment will be provided for construction trades over an 11-year period with a total construction payroll of approximately $900 million. Employment will be provided for 400 operating personnel during the life of the project.

The Department of Water and Power considers the San Joaquin Nuclear Project to be its most important future generation resource and an indication of our belief that nuclear power is the best means of meeting our future energy needs in the most environmentally acceptable manner. When completed, the San Joaquin Nuclear Project will provide approximately 30 per cent of the Department's energy requirements.

In conclusion, we believe the initiative is designed to effectively prevent the construction of nuclear power plants in California and shut down those already in operation at a time when they are most needed.

The passage of the initiative will severely affect the adequacy of the future electric power supply of the City of Los Angeles. It will deprive our citizens of the benefits of one of the most important proven energy resources. Its passage will adversely affect the economic well-being of the city and state.

I appreciate this opportunity to present our views on this very important issue. Thank you very much.

U.C. BERKELEY LIBRARIES
C101743129